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EXAMINER	
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ART UNIT	PAPER NUMBER
3614	5

DATE MAILED: 09/17/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on May 15, 1998.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 (three) month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-50 is/are pending in the application.

Of the above, claim(s) 48-50 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-47 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of Reference Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2, 2 sheets.

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

DETAILED ACTION

Election

This Office Action is in response to the application filed June 20, 1997, and Applicant's election **without** traverse of claims 1-47, in paper No. 4, filed May 15, 1998.

Accordingly, claims 48-50 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Information Disclosure Statement

The Information Disclosure Statement filed September 29, 1997 has been fully considered by the Examiner, as indicated by the initialed copy of Applicant's form PTO-1449 (2 sheets).

Drawings

The drawings have been objected to by the Official Draftsperson for the reasons given on the accompanying form PTO-948 (Notice of Draftsperson's Patent Drawing Review).

Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the independent claims are directed (something along the lines of --processed GPS signals in a personal communicator to request, transmit, download and display digital position responsive map information received from digital map storage device(s)--, but not quite as long). Further, it is not seen that the phrase "voice data positioning information" (in the title), accurately reflects the claimed invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 is indefinite, in that line 2 thereof recites "the modem" and "the receiver", whereas previously (back in claim 1, lines 6 and 5 respectively), Applicant had instead recited "a first transceiver" and "a first modem". In order to avoid confusion it is required that claim 21 be amended accordingly.

Claim 27, line 3, also recites "the modem" and "the receiver", whereas claim 1 recites both first and second modems, as well as first and second transceivers. Accordingly, the claim is indefinite. It is suggested that "first" be inserted before each of "modem" and "transceiver", in line 3 of claim 27 (in a manner similar to claim 21).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-11, 27-31 and 34-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Branch et al. (5,760,742).

With respect to independent claim 1, Branch et al. discloses an "integrated mobile GIS/GPS/AVL with wireless messaging capability. The integrated geographic information and automatic position location system of Branch et al., as shown in at least Figs. 2A, 2B and especially 2D (and on the front of the patent), comprises a display 34, a GPS receiver and processor 14, a first transceiver, a first digital processor and an inherent first modem in the form of communication node 12, as well as means for requesting map information with respect to GPS

position, receiving the map information from memory storage at the base station (using communication node 12, which had been transmitted from the base station, using an inherent second receiver, modem and processor). The responsive map information is subsequently displayed along with the position or location for which map data was requested, using the geographic mapping system integrated into the portable data terminal (please see the abstract and also column 2, line 38 through column 3, line 63).

Independent claim 34 recites a personal digital communicator for receiving GPS signals, determining the device (communicator) location, providing and receiving device locations with other devices (other personal digital communicators), requesting and receiving map information from digital map storage devices and finally displaying the received external map information along with the "device" location and the other device locations.

Please note column 3, lines 40-48 of Branch et al. which teach that geographic information or position location information can be displayed on the display unit of the portable data terminal, that "the present invention provides the ability to display a map on which is superimposed the user's present position", and that the portable data terminal is also able to communicate with *at least* one desired location such as a base station even when the portable data terminal is removed from the vehicle. Additionally, lines 23-27 of column 6 teach that in addition to displaying geographic mapping system information on the display unit 34, the present invention also displays vehicle position tracking information on the display unit 34, and that such vehicle tracking

information includes the location of other utility service vehicles. Finally, col. 8, line 64, through col. 9, line 8, further teaches that the portable data terminal gas the GPS receiver contained therein, that the position of the user is known by the dispatcher even when the user is not located within the vehicle, and that such information can be extremely beneficial should a user become injured or need to be located (after using a "panic button").

With respect to claim dependent claims 2-6, relating to downloading map information using a first transceiver and modem, requesting map information pertaining to another location, storing additional data with discrete data points (locations), and the use of "memory for storing map information and additionally stored information in digital form", please see the rejection of independent claim 1 above for these fundamental features of the integrated geographic information and automatic position locating system of Branch et al.

With respect to dependent claims 7-11 and 35-40, relating to having a second personal digital communicator act as a map storage and transmitting device, transmitting further data associated with a location, displaying a symbol indicative of the geographic location of responsive external or internal map information, as well as the use of internal computer memory and a keyboard, please see the above rejections of independent claims 1 and 34, in addition to col. 3, lines 10-18 (of Branch et al.), which teach the use of an input means to send messages to the vehicle monitor at a base station of the occurrence of a detour, accident or the like, col. 5, lines

56-67 which teach that the automatic position location system is also well suited to using non-geographic information such as utility company power pole inventory data, transformer specifications and the like.

Dependent claims 27-31, relate to determining if the communicator memory contains map information for a geographic area within a selected radius (and then transmitting a request therefor, if the communicator memory does not contain the map information), as well as the use of a cellular phone network, radio communications, telephonic communications or a satellite communications network for transmitting a request by the communicator, and then downloading or receiving map information responsive to the request. In this respect please note column 5, line 37 through column 7, line 47 of Branch et al. which teaches downloading geographic attributes of a desired area (col. 5, ll. 46-47), use of non-geographic information such as pole inventory data, transformer specifications, and the locations of other utility service vehicles (and the like, as noted supra), and that the communication link may be established by means of wide area network (WAN), a trunked radio system using assigned channels, by means of a Cellular Digital Packet Data (CDPD, as well as ECP/IP) protocols/networks in which a modem and a radio are used to send data over cellular circuits not currently being used for voice transmissions. Further, in lines 35-42 of col. Branch et al. teaches establishing a Subscription Mobile Radio (SMR) system which makes use of rf (radio frequency) signals and assigned communication frequencies for a

communications link between the integrated geographic information and automatic vehicle location system and the base station 22.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12-26 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Branch et al. in view of Steiner et al (5,528,248).

Branch et al. discloses an integrated geographic information and automatic position locating system (first referred to above as an integrated Mobile GIS/GPS/AVL with wireless messaging capability), which has been also shown to download requested map information, in addition to display of associated position locations on the map information data as well as selection of non-geographic information. Branch et al. does not particularly disclose that the GPS processor determines a heading of direction (or North, as in claims 12, 26, 43 and 44), the use and selection of markers for indicating the availability of additional data associated with discrete map data points (claims 13-16, 41 and 42), determining routes by a number of

sequentially selected markers (or waypoints, claims 17-19), and downloading additional data associated with a discrete (map) data point as a video file, an audio file, or for providing weather information (claims 20-25).

Steiner et al. discloses a **personal digital location apparatus** for displaying a geographical location as an icon on a map, which includes a GPS smart antenna (for determining the geographic location), a personal computing device including a display, and a processing system (please see the abstract). In particular, Fig. 3 shows an embodiment of an aviation map on a display of a Personal Digital Location Assistant (PDLA), where column 6, lines 1-35 disclose that the computing device includes a memory cartridge which connects to the PDA (personal digital computing device), and a GPS smart antenna, in order to display a user's location and relative locations, and the attributes of the map features proximate to the location of the GPS Smart Antenna. Column 8, lines 35-40 of Steiner et al. also teach that user entry may include one or more push keys, toggle switches, proximity switches, magnetic or optical balls, as well as "soft keys" on the visual display. Column 9, line 62 through column 11, line 7, further teach that a map for marine, land or other environment can equally well be applied, that requests are entered using labels or placement on the touchscreen, and where Fig. 3 shows numerous other bits of information (E.G., waypoints 168 and 178, North, heading of 345°, speed of 165 knots), on the screen along with touch keys 152, 154, 156, 158, 160, 162, 188, 186, 184 and 182). Finally, Steiner et al. teaches that the personal digital assistant (PDA) on which the location system is running, consists primarily of a hardware processing system running an operating system (such as

DOS, Windows, Mac, or Geoworks), wherein those operating systems inherently provide access to different types of data files (audio, video, text, etc..), as well as access to the communication and information networks through BBS or internet components of the operating system.

Accordingly, at the time the invention was made it would have been obvious to one of ordinary skill in the art of GPS and portable communications systems, to have used the portable data terminal (with GPS and real-time two way communication) of Branch et al., in the manner taught by Steiner et al., because both references relate to GPS position display on a portable computing device, where Steiner et al. teaches running the map/GPS system simply *as an application program* (within the context of the operating system environment), and further because in such an operating system environment the communication link and disclosed Subscription Mobile Radio (SMR) of Branch et al., are readily available to download weather and other selected information from a data base (in the form of audio and visual files, using the inherent communications capabilities of an operating system as taught by Steiner et al.), in addition to downloading *just* map information as taught by Branch et al.

Claims 32, 33 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Branch et al. and Steiner et al., as applied to claims 1, 34 or 40 above, and further in view of Thompson et al. (5,335,276).

The combination of Branch et al. and Steiner et al. taught supra provides for an application-program-based GPS map display system, running on a personal computer and capable

of downloading and display of map information, as well as audio and video files. The above combination does not particularly provide for storing configuration information which is responsive to personal identification numbers (PIN).

Thompson et al. discloses a communication system for personal communication devices which is especially suited for use with on-line data base services, including electronic and voice mail. Fig. 8 of Thompson et al. shows a touch-screen having a weather request key, where Fig. 9d shows an interactive visual display of map information. Further, col. 2, lines 3-8 teach maintaining security of the data bases and authorized access through the use of verification procedures using identification numbers or code numbers, where col. 3, lines 35-55 teach "customized data and preferences for each user, as well as basic telephone, pager services and utility programs to upload and download various application modules (lines 38-40).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Pipala whose telephone number is (703) 305-9785. The examiner can normally be reached on Monday through Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Cuchlinski, can be reached on (703) 308-3873. The fax phone number for this Group is (703) 305-7687

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

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or faxed to: (703) 305-7687, (for formal communications intended for entry)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Second Floor (Receptionist).

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PRIMARY EXAMINER